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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,088	06/27/2003	Gregory J. Ward	12598.0144.NPUS00	7547

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ARLINGTON, VA 22202

EXAMINER
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SACKEY, EBENEZER O

ART UNIT	PAPER NUMBER
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1626

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/609,088

Applicant(s)

WARD ET AL.

Examiner

EBENEZER SACKY

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-11 and 15-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-6,11,15-20 and 80 is/are allowed.
- 6) ☒ Claim(s) 21-39 is/are rejected.
- 7) ☒ Claim(s) 11 and 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### **Status of Claims**

This is in response to applicant's amendment filed 02/21/06.

Claims 1-6, 8-11 and 15-39 are pending.

Claims 7 and 12-14 have been cancelled.

Claims 1 and 21 have been amended.

### ***Claim Rejections - 35 USC § 112***

The rejection of claims 1-5, 8-11, 15-20, 22-24, 26-33 and 35-39 under 35 U.S.C. 112, first paragraph and claims 1-6, 8-11, 15-16 and 18-39 under 122, second have been withdrawn.

### ***Response to Amendment***

Applicant's arguments filed 02/21/06 have been fully considered but they are not deemed fully persuasive. The rejection of claims under 112, first and second paragraphs have been withdrawn. Thus, arguments to those rejections are moot.

### **Claim Rejections - 35 U.S.C. § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 21-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens et al., (U.S. Patent number 3,185,636) and Shibano et al., (U.S. Patent number 4,625,059) in combination for the reasons set forth in the last office action mailed on 11/15/05.

### ***Response to Amendment***

Applicant's arguments filed 02/21/06 have been fully considered but they are not deemed fully persuasive.

Applicants argue that there is no teaching or suggestion in the Stevens et al., (636) reference that trace amounts of acrolein can remain in the process stream. In response, this argument is incorrect because Stevens et al., teach the removal of acrolein from an acrylonitrile stream. See column 1, lines 15-21. The only missing element from Stevens et al., is the use of an acid catalyst and a reactable thiol in the

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process. This missing element is provided by Shibano et al.,(059) who teach that compounds containing a mercapto group in its molecule react with aldehyde impurities (-CHO) very selectively. Since acrolein contains an aldehyde terminal group, one of ordinary skill would have a reasonable expectation of success in employing the acid catalyst and thiol containing compound of Shibano et al., in the process of Stevens et al., to arrive at the instantly claimed process. Therefore, at the time of filing this application, one of ordinary skill in possession of the two references (636) and (059) would have been in possession of the instant invention.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to E. Sackey whose telephone number is (571) 272-0704.

The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm.

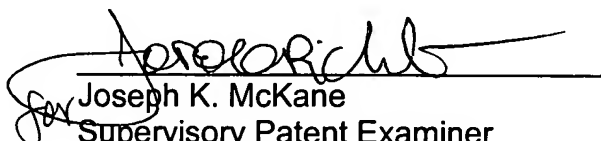
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane, can be reached on (571) 272-0699. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is

(571) 272-1600.

EOS

April 29, 2006

  
Joseph K. McKane  
Supervisory Patent Examiner  
Art Unit 1626, Group 1600  
Technology Center 1